

In the Claims

1. (Currently Amended) An oxidized acrylic fiber nonwoven fabric, ~~characterized in that it has~~having a weight per square-meter of 70 to 190 g/m², a thickness of 0.1 to 0.3 mm and a density of 0.35 to 0.8 g/cm³.

2. (Currently Amended) ~~An oxidized acrylic fiber nonwoven~~The fabric, according to claim 1, wherein ~~the~~a thickness change due to compression as ~~the~~a difference between the thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa is 0.15 mm or less.

3. (Currently Amended) ~~An oxidized acrylic fiber nonwoven~~The fabric, according to claim 1, wherein ~~the~~ oxidized acrylic fibers comprising the fabric are oriented also in the thickness direction of the nonwoven fabric.

4. (Currently Amended) ~~An oxidized acrylic fiber nonwoven~~The fabric, according to claim 1, which is substantially formed of oxidized acrylic fibers only.

5. (Currently Amended) A carbon fiber nonwoven fabric, ~~characterized in that it is formed of~~comprising carbon fibers and ~~has~~having a weight per square-meter of 50 to 150 g/m², a thickness of 0.1 to 0.25 mm, a density of 0.3 to 0.7 g/cm³, a surface roughness Ra of 30 μm or less, a tensile strength of 0.2 kgf/cm or more and a maximum fracture radius of 20 mm or less.

6. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5, which is substantially formed of carbon fibers only.

7. (Currently Amended) A carbon fiber nonwoven fabric, ~~characterized in that it is formed of~~comprising substantially carbon fibers only and ~~has~~having a weight per square-meter of 50 to 150 g/m², a thickness of 0.1 to 0.25 mm, a density of 0.3 to 0.7 g/cm³, a surface roughness Ra of

30 μm or less, a peak size of 10 to 60 μm in the pore size distribution and a tensile strength of 0.2 kgf/cm or more.

8. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 7, wherein ~~the~~a thickness change due to compression as ~~the~~a difference between ~~the~~a thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa is 0.15 mm or less.

9. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 7, ~~wherein the~~having a modulus of elasticity in flexure ~~is~~of 0.1 GPa or more.

10. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 7, wherein the differential pressure occurring when air of 14 cm/sec is permeated through the nonwoven fabric in the thickness direction is from 1 to 10 mm Aq.

11. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 7, ~~wherein the~~having an electric resistance in the thickness direction ~~is~~of $15 \text{ m}\Omega \cdot \text{cm}^2$ or less.

12. (Currently Amended) A carbon fiber nonwoven fabric, ~~characterized in that it has~~having a weight per square-meter of 60 to 110 g/m^2 , a thickness of 0.13 to 0.22 mm, a density of 0.4 to 0.7 g/cm^3 , a maximum fracture radius of 20 mm or less, a surface roughness Ra of 20 μm or less, a thickness change due to compression as ~~the~~a difference between ~~the~~a thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa is 0.1 mm or less, a tensile strength of 0.5 kgf/cm or more, a modulus of elasticity in flexure of 0.1 GPa or more, a peak size of 15 to 50 μm in ~~the~~the pore size distribution, an electric resistance ~~of~~of $15 \text{ m}\Omega \cdot \text{cm}^2$ or less in the thickness direction, and a differential pressure of 2 to 7 mm Aq occurring when air of 14 cm/sec is permeated through the nonwoven fabric in the thickness direction.

13. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 12, ~~wherein~~further comprising carbon black ~~is contained on the~~a surface of and/or inside the fabric.

14. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 5 or 12, ~~which contains~~further comprising a water-repellent substance.

15. (Currently Amended) ~~A carbon fiber nonwoven fabric, characterized in that it is~~formed of comprising carbon fibers and a water-repellent substance and ~~has~~having a weight per square-meter of 60 to 180 g/m², a thickness of 0.1 to 0.25 mm, a density of 0.35 to 0.9 g/cm³, a surface roughness Ra of 25 μm or less, a maximum fracture radius of 20 mm or less and a modulus of elasticity in flexure of 0.5 GPa or more.

16. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 15, wherein ~~the~~a thickness change due to compression as ~~the~~a difference between ~~the~~a thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa is 0.15 mm or less.

17. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 15, ~~which has~~having a tensile strength of 0.7 kgf/cm or more.

18. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 15, wherein ~~the~~a differential pressure occurring when air of 14 cm/sec is permeated through the nonwoven fabric in the thickness direction is from 2 to 12 mm Aq.

19. (Currently Amended) ~~A carbon fiber nonwoven fabric, characterized in that it is~~formed of comprising carbon fibers and a water-repellent substance and ~~has~~having a weight per square-meter of 70 to 130 g/m², a thickness of 0.13 to 0.22 mm, a density of 0.45 to 0.7 g/cm³, a surface roughness Ra of 15 μm or less, a maximum fracture radius of 20 mm or less, a thickness change due to compression of 0.1 mm or less as ~~the~~a difference between ~~the~~a thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa, a tensile strength of 1.0 kgf/cm or more, a modulus of elasticity in flexure of 1.0 GPa or more and a differential pressure of 2

to 8 mm Aq occurring when air of 14 cm/sec is permeated through the nonwoven fabric in the thickness direction.

20. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to claim 15 or 19, which is substantially formed of carbon fibers and a water-repellent substance only.

21. (Currently Amended) A carbon fiber nonwoven fabric, ~~characterized in that it is formed of comprising~~ carbon fibers, fine carbon particles and a water-repellent substance, with the fine carbon fibers existing locally on one side of the nonwoven fabric, and ~~has~~having a weight per square-meter of 70 to 200 g/m², a thickness of 0.12 to 0.27 mm, a surface roughness Ra of 15 μm or less, a thickness change due to compression of 0.15 mm or less as ~~the~~a difference between the thickness at a planar pressure of 0.15 MPa and the thickness at a planar pressure of 1.0 MPa, and a tensile strength of 0.7 kgf/cm or more.

22. (Currently Amended) ~~A carbon fiber nonwoven~~The fabric, according to any one of claims 5, 7, ~~12~~, 15, 19 and 21, wherein the carbon fibers are ~~oriented~~ also oriented in the thickness direction of the nonwoven fabric.

23. (Original) An electrode using the carbon fiber nonwoven fabric as set forth in any one of claims 5, 7, 12, 15, 19 and 21.

24. (Currently Amended) An electrode diffusion layer ~~using~~comprising the carbon fiber nonwoven fabric ~~as~~-set forth in any one of claims 5, 7, 12, 15, 19 and 21.

25. (Currently Amended) A fuel cell unit, ~~characterized in that~~ comprising the electrode diffusion layer ~~as~~-set forth in claim 24, a catalyst layer and a polymeric electrolyte membrane ~~are~~ disposed in layers.

26. (Currently Amended) A fuel cell, comprising the electrode diffusion layer ~~as~~-set forth in claim 24.

27. (Currently Amended) A method for producing the ~~oxidized acrylic fiber nonwoven fabric as set forth in claim 1, including the step of comprising~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at a temperature of 140°C or higher and at a linear pressure of 5 to 200 kgf/cm in ~~the~~a thickness direction using a continuous press.

28. (Currently Amended) A method for producing the ~~carbon fiber nonwoven fabric as set forth in any one of claims 5, 7, 12, 15, 19 and 21, comprising the steps of~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at a temperature of 140°C or higher and at a linear pressure of 5 to 200 kgf/cm in ~~the~~a thickness direction, and carbonizing the oxidized acrylic fiber nonwoven fabric.

29. (Currently Amended) A method for producing the ~~oxidized acrylic fiber nonwoven fabric as set forth in claim 1, including the step of comprising~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at 140 to 300°C and at 0.5 to 40 MPa for 30 seconds or more by a continuous method.

30. (Currently Amended) A method for producing the ~~carbon fiber nonwoven fabric as set forth in any one of claims 5, 7, 12, 15, 19 and 21, comprising the steps of~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at 140 to 300°C and at 0.5 to 40 MPa for 30 seconds or more by a continuous method, and carbonizing the oxidized acrylic fiber nonwoven fabric.

31. (Currently Amended) A method for producing the ~~oxidized acrylic fiber nonwoven fabric as set forth in claim 1, comprising the steps of~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at a temperature of 140°C or higher and at a linear pressure of 5 to 200 kgf/cm in ~~the~~a thickness direction by a continuous method, and pressurizing at 140 to 300°C and at a planar pressure of 0.5 to 40 MPa for 10 seconds or more by a continuous method.

32. (Currently Amended) A method for producing the ~~carbon fiber nonwoven fabric~~ as set forth in any one of claims 5, 7, 12, 15, 19 and 21, comprising ~~the steps of~~ pressurizing a nonwoven fabric obtained ~~by using~~with oxidized acrylic fibers, at a temperature of 140°C or higher and at a linear pressure of 5 to 200 kgf/cm in ~~the~~a thickness direction by a continuous method, and pressurizing at 140 to 300°C and at a planar pressure of 0.5 to 40 MPa for 10 seconds or more by a continuous method.

33. (Currently Amended) A~~The~~ method for ~~producing an oxidized acrylic fiber nonwoven fabric,~~ according to claim 29 or 31, wherein the pressurization using a planar pressure by a continuous method is performed by a method comprising intermittent material carrying and a flat plate press in combination.

34. (Currently Amended) A~~The~~ method for ~~producing a carbon fiber nonwoven fabric,~~ according to claim 30 or 32, wherein the pressurization using a planar pressure by a continuous method is performed by a method comprising intermittent material carrying and a flat plate press in combination.